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## CSNK1D (C2) Antibody, Rabbit Polyclonal

**Cat#:** R1745-2

**Quantity:** 100 ul

**Predicted | Observed M.W.:** 47 kDa

**Lot#:** Refer to vial

**Application:** WB

**Uniprot ID:** P48730

### **Background:**

Casein kinase I isoform delta (CSNK1D) is an essential serine/threonine-protein kinase that regulates diverse cellular growth and survival processes including Wnt signaling, DNA repair and circadian rhythms. It can phosphorylate a large number of proteins, including connexin-43/GJA1, MAP1A, SNAPIN, MAPT/TAU, TOP2A, DCK, HIF1A, EIF6, p53/TP53, DVL2, DVL3, ESR1, AIB1/NCOA3, DNMT1, PKD2, YAP1, PER1 and PER2. Casein kinases are operationally defined by their preferential utilization of acidic proteins such as caseins as substrates. CSNK1D may act as a negative regulator of circadian rhythmicity by phosphorylating PER1 and PER2, leading to retain PER1 in the cytoplasm. YAP1 phosphorylation by CSNK1D promotes its SCF(beta-TRCP) E3 ubiquitin ligase-mediated ubiquitination and subsequent degradation. DNMT1 phosphorylation reduces its DNA-binding activity. Phosphorylation of ESR1 and AIB1/NCOA3 stimulates their activity and coactivation. Phosphorylation of DVL2 and DVL3 regulates WNT3A signaling pathway that controls neurite outgrowth. Defects in CSNK1D are a cause of familial advanced sleep-phase syndrome (FASPS). CSNK1D may also be involved in Alzheimer disease by phosphorylating MAPT/TAU.

### **Other Names:**

Casein kinase I isoform delta, CKI-delta, CKId, Tau-protein kinase CSNK1D, HCKID

### **Source and Purity:**

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of human CSNK1D. Antibodies were purified by affinity purification using immunogen.

### **Storage Buffer and Condition:**

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN<sub>3</sub>. Store at -20 °C. Stable for 6 months from date of receipt.

### **Tested Applications:**

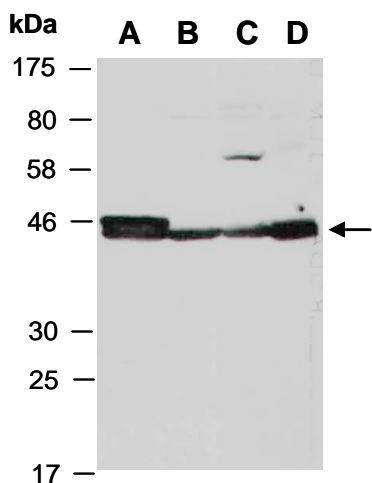
WB: 1:1,000-1:3,000 (detect endogenous protein\*)

\*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

**Species Specificity:**

Human, Mouse

**Product Data:**



**Fig 1.** Western blot of total cell extracts from (A) mouse brain, (B) mouse thymus, (C) human HeLa, (D) human Jurkat; using anti-CSNK1D (C2) (R1745-2) at RT for 2 h.